



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,261	10/05/2005	Kyoung-Ju Shin	6192.06-43.US	6528
23345 7590 MCGUIREWOODS, LLP 1750 TYSONS BLVD SUITE 1800 MCLEAN, VA 22102			EXAMINER TRAN, MY CHAU T	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 05/29/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,261

Applicant(s)

SHIN ET AL.

Examiner

MY-CHAU T. TRAN

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-16 and 42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7-16 and 42 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/23/2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Allowable Subject Matter

1. Prosecution on the merits of this application is reopened on claims 1, 3-16, and 42 considered unpatentable for the reasons indicated below:

a. Claims 1, 3, 5, 7-16, and 42 are rejected by prior art of Koyama et al. (US Patent Application Publication US 2001/0043168).

2. Applicant is advised that the Notice of Allowance mailed on 03/20/2009 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Application and Claims Status

3. Claims 1, 3-16, and 42 are currently pending. Additionally, claims 17-41 are drawn to non-elected species and/or inventions, wherein the election was made *without traverse* in the reply filed on 06/03/2008, and were cancelled by the examiner's amendment in the Office Action mailed 03/20/2009. Accordingly, claims 1, 3-16, and 42 are under consideration in this Office Action.

Claim Objections

4. Applicant is advised that should claim 13 be found allowable, claim 42 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 5, 8-11, 13-16, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Koyama et al. (US Patent Application Publication US 2001/0043168 A1).

For *claims 1, 3, 5, 8-11, 13-16, and 42*, Koyama et al. disclose an electroluminescence (EL) display device (see e.g. Abstract; sections: [0002], [0055]-[0071], and [0128]-[0134]; figs. 1-3). As illustrated by figure 2, the EL display device comprises a plurality of source signal lines (ref. #S1-Sn) (refers to instant claimed data line), a plurality of gate signal lines (ref. #G1-Gn) (refers to instant claimed scan line), a plurality of power supply lines (ref. #VY1-VYn) that is in the direction parallel to the source signal lines (ref. #S1-Sn) (refers to instant claimed first current supply line; and claim 11), a plurality of power supply lines (ref. #VX1-VXn) that is in the direction parallel to the gate signal lines (ref. #G1-Gn) (refers to instant claimed second

current supply line; and claim 11), and a plurality of pixels in a matrix format (see e.g. sections: [0148]-[0150], [0161]-[0164], and [0166]-[00169]; fig. 10). As depicted by both figures 2 and 10, the power supply lines (ref. #VY1-VYn) (refers to instant claimed first current supply line) and the power supply lines (ref. #VX1-VXn) (refers to instant claimed second current supply line) are directly connected to each other via the node (ref. #●) (refers to instant claims 1 and 9). As shown by figure 3, the power supply lines (ref. #VY1-VYn) (refers to instant claimed first current supply line) that is in the direction parallel to the source signal lines (ref. #S1-Sn) (refers to instant claimed data line) are formed on the same layer (refers to instant claimed first layer) (refers to instant claims 3 and 5); and the power supply lines (ref. #VY1-VYn) (refers to instant claimed first current supply line) overlapped the gate signal lines (ref. #G1-Gn) (refers to instant claimed scan line)(see e.g. fig. 42). Also shown by figure 3, the power supply lines (ref. #VX1-VXn) (refers to instant claimed second current supply line) that is in the direction parallel to the gate signal lines (ref. #G1-Gn) (refers to instant claimed scan line) are formed on the same layer as the pixel electrode (ref. #4414) (refers to instant claims 3 and 5) (see e.g. fig. 42). Each pixel comprises a switching thin film transistor (TFT) (ref. #4402) that is connected to the gate signal line and source signal line (refers to instant claimed switching part/second transistor; and instant claim 14), an EL element (ref. #4414) that is made with organic EL material (refers to instant claimed organic electroluminescent part), a driving TFT (ref. #4406) (refers to instant claimed driving part/first transistor; and instant claim 10) that is between and connected the power supply line (ref. #VY1) and the EL element (ref. #4414), and storage capacitor (ref. #4419) that is between the driving TFT (ref. #4406) and the power supply line (ref. #VY1) (refers to instant claimed storage capacitor; and instant claim 8) (see e.g. sections: [0148]-[0150], [0161]-[0164],

[0166]-[00169], [0182]-[0185], and [0222]-[0226]; figs. 2 and 10). The type of transistor use for both the driving TFT (ref. #4406) and the switching thin film transistor (TFT) (ref. #4402) can be either a p-channel type TFT or an n-channel type TFT (refers to instant claims 15 and 16) (see e.g. sections: [0175], [0234], [0270], [0289], and [0333]).

Additionally, the functional limitation of claims 13 and 42 (i.e. ‘wherein a level of the first voltage is substantially equal to a level of the second voltage’ of claim 13 and ‘wherein the first voltage is substantially the same as the second voltage’ of claim 42) does not impart any structural distinction between the instant claimed first current supply line and second current supply line and the power supply lines (ref. #VX1-VXn and VY1-VYn) of Koyama et al., and as a result the EL display device of Kishi et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. a data line, a scan line, a switching part, a driving part, and an organic electroluminescent part, of the claimed apparatus of claim 1. See MPEP § 2114, which states as follows:

APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART
>While features of an apparatus may be recited either structurally or functionally, claims directed to
>an apparatus must be distinguished from the prior art in terms of structure rather than function.
>In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board’s finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). “[A]pparatus claims cover what a device is, not what a device does.” Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

And also that:

MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

Moreover, Koyama et al. disclose that the power supply lines (ref. #VX1-VXn and VY1-VYn) supply electric current/voltage to the EL element (ref. #4414) (see e.g. sections: [0131]-[0133] and [0149]; figs. 2 and 10), and it is art recognized that the changes in the electric current/voltage is dependent on what is displayed, i.e. the display signal.

Therefore, the device of Koyama et al. does anticipate the instant claimed invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 3-5, 7-16, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al. (US Patent Application Publication US 2001/0043168 A1).

For *claims 1, 3, 5, 8-11, 13-16, and 42*, Koyama et al. disclose an electroluminescence (EL) display device (see e.g. Abstract; sections: [0002], [0055]-[0071], and [0128]-[0134]; figs. 1-3). As illustrated by figure 2, the EL display device comprises a plurality of source signal lines (ref. #S1-Sn) (refers to instant claimed data line), a plurality of gate signal lines (ref. #G1-Gn) (refers to instant claimed scan line), a plurality of power supply lines (ref. #VY1-VYn) that is in the direction parallel to the source signal lines (ref. #S1-Sn) (refers to instant claimed first current supply line; and claim 11), a plurality of power supply lines (ref. #VX1-VXn) that is in the direction parallel to the gate signal lines (ref. #G1-Gn) (refers to instant claimed second current supply line; and claim 11), and a plurality of pixels in a matrix format (see e.g. sections: [0148]-[0150], [0161]-[0164], and [0166]-[00169]; fig. 10). As depicted by both figures 2 and 10, the power supply lines (ref. #VY1-VYn) (refers to instant claimed first current supply line) and the power supply lines (ref. #VX1-VXn) (refers to instant claimed second current supply line) are directly connected to each other via the node (ref. #●) (refers to instant claims 1 and 9). As shown by figure 3, the power supply lines (ref. #VY1-VYn) (refers to instant claimed first current supply line) that is in the direction parallel to the source signal lines (ref. #S1-Sn) (refers to instant claimed data line) are formed on the same layer (refers to instant claimed first layer) (refers to instant claims 3 and 5); and the power supply lines (ref. #VY1-VYn) (refers to instant claimed first current supply line) overlapped the gate signal lines (ref. #G1-Gn) (refers to instant claimed scan line)(see e.g. fig. 42). Also shown by figure 3, the power supply lines (ref. #VX1-VXn) (refers to instant claimed second current supply line) that is in the direction parallel to the gate signal lines (ref. #G1-Gn) (refers to instant claimed scan line) are formed on the same layer as the pixel electrode (ref. #4414) (refers to instant claims 3 and 5) (see e.g. fig. 42). Each pixel

comprises a switching thin film transistor (TFT) (ref. #4402) that is connected to the gate signal line and source signal line (refers to instant claimed switching part/second transistor; and instant claim 14), an EL element (ref. #4414) that is made with organic EL material (refers to instant claimed organic electroluminescent part), a driving TFT (ref. #4406) (refers to instant claimed driving part/first transistor; and instant claim 10) that is between and connected the power supply line (ref. #VY1) and the EL element (ref. #4414), and storage capacitor (ref. #4419) that is between the driving TFT (ref. #4406) and the power supply line (ref. #VY1) (refers to instant claimed storage capacitor; and instant claim 8) (see e.g. sections: [0148]-[0150], [0161]-[0164], [0166]-[00169], [0182]-[0185], and [0222]-[0226]; figs. 2 and 10). The type of transistor use for both the driving TFT (ref. #4406) and the switching thin film transistor (TFT) (ref. #4402) can be either a p-channel type TFT or an n-channel type TFT (refers to instant claims 15 and 16) (see e.g. sections: [0175], [0234], [0270], [0289], and [0333]).

Additionally, the functional limitation of claims 13 and 42 (i.e. *‘wherein a level of the first voltage is substantially equal to a level of the second voltage’* of claim 13 and *‘wherein the first voltage is substantially the same as the second voltage’* of claim 42) does not impart any structural distinction between the instant claimed first current supply line and second current supply line and the power supply lines (ref. #VX1-VXn and VY1-VYn) of Koyama et al., and as a result the EL display device of Kishi et al. would still anticipate the presently claimed apparatus since it meets all the structural limitations, i.e. a data line, a scan line, a switching part, a driving part, and an organic electroluminescent part, of the claimed apparatus of claim 1. See MPEP § 2114, which states as follows:

APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART
>While features of an apparatus may be recited either structurally or functionally, claims< directed to
>an< apparatus must be distinguished from the prior art in terms of structure rather than function.

> *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); < *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

And also that:

MANNER OF OPERATING THE DEVICE DOES NOT DIFFERENTIATE APPARATUS CLAIM FROM THE PRIOR ART

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

Moreover, Koyama et al. disclose that the power supply lines (ref. #VX1-VXn and VY1-VYn) supply electric current/voltage to the EL element (ref. #4414) (see e.g. sections: [0131]-[0133] and [0149]; figs. 2 and 10), and it is art recognized that the changes in the electric current/voltage is dependent on what is displayed, i.e. the display signal.

The teachings of Koyama et al. differ from the presently claimed invention as follows:

For **claim 4**, Koyama et al. fail to disclose that the second current supply line is overlapped with the scan line.

For **claim 7**, Koyama et al. fail to disclose that the second current supply line is overlapped with the data line.

For **claim 12**, Koyama et al. fail to disclose that the first current supply line is substantially in parallel with the scan line, and the second current supply line is substantially in parallel with the data line.

However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose the structural feature claimed in instant claims 4, 7, and 12 in the device of Koyama et al. One of ordinary skill in the art would have been motivated to disclose

the structural feature claimed in instant claims 4, 7, and 12 in the device of Koyama et al. since the type of arrangements as claimed in claims 4, 7, and 12 for the instant claimed first current supply line and second current supply line would be a design choice, and is considered within the purview of the cited prior art. Furthermore, such arrangement does not structurally transform the instant claimed display device such that it would patentably distinguish the claimed invention from the cited prior art. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)

Therefore, the teachings of Koyama et al. do render the device of the instant claims *prima facie* obvious.

Allowable Subject Matter

10. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T. TRAN whose telephone number is (571)272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MY-CHAU T. TRAN/
Primary Examiner, Art Unit 2629

May 28, 2009